

## 1. Supplemental Digital Content

**Supplemental table 1.** Nutritional composition of the GMF and CMF

	GMF /100 ml	CMF /100 ml
Energy (kcal)	67.0	67.6
Protein (g)	1.7	1.35
Carbohydrates (g)	7.2	7.6
GOS (mg)	410	ND (GOS+PDX)
Fat (g)	3.4	3.6
Linoleic acid (mg)	550	530
A-linolenic acid (mg)	41	ND
Docosahexaenoic acid (mg)	10	ND
Arachidonic acid (mg)	21	ND
$\beta$ -palmitate (g)	0.54	NA

NA: not added, ND: not declared

## 2. Supplemental digital content

**Supplemental table 2.** Mean and mean difference for weight, length, and head circumference throughout the 16-wk intervention period in the intention-to-treat study sample

Visit	GMF*			CMF*			BF <sup>†</sup>			GMF vs. CMF*		GMF vs. BF <sup>†</sup>		CMF vs. BF <sup>†</sup>	
	n	LS mean	SE	n	LS mean	SE	n	LS mean	SE	MD	95% CI	MD	95% CI	MD	95% CI
<b>Weight (g)</b>															
2	90	3904.6	25.4	91	3835.3	27.4	84	3860.0	38.1	69.3	13.5, 125.0	76.2	-3.8, 156.2	28.4	-65.0, 121.8
3	83	4523.9	46.2	84	4477.3	49.6	83	4352.2	65.5	46.6	-57.6, 150.8	198.4	59.0, 337.8	136.1	-18.1, 290.3
4	82	5486.6	65.1	83	5368.8	70.0	82	5142.0	92.9	117.4	-29.6, 265.1	283.8	87.1, 480.5	212.6	10.7, 414.5
5	77	6322.3	79.6	82	6114.5	80.5	79	5851.1	113.4	207.8	34.1, 381.5	497.1	247.0, 747.3	268.2	14.7, 521.6
6	74	7009.0	96.1	79	6781.2	99.5	76	6449.3	139.9	227.8	16.6, 439.0	589.1	282.1, 896.1	334.8	35.2, 634.4
<b>Length (cm)</b>															
2	90	52.8	0.1	90	52.8	0.2	83	52.7	0.3	0.1	-0.3, 0.4	0.2	-0.3, 0.7	0.1	-0.4, 0.6
3	83	54.8	0.2	84	54.9	0.2	83	54.9	0.3	-0.1	-0.5, 0.4	0.1	-0.6, 0.8	0.1	-0.6, 0.8
4	82	58.1	0.2	83	58.0	0.2	82	57.7	0.3	0.2	-0.3, 0.7	0.4	-0.2, 1.1	0.5	-0.2, 1.2
5	77	61.3	0.3	82	61.0	0.3	79	60.7	0.3	0.3	-0.2, 0.9	0.5	-0.2, 1.3	0.0	-0.8, 0.7
6	74	63.8	0.2	79	63.7	0.3	76	63.2	0.4	0.1	-0.5, 0.6	0.8	-0.1, 1.6	0.2	-0.6, 1.0
<b>Head circumference (cm)</b>															
2	90	36.3	0.1	90	36.3	0.1	84	36.4	0.1	0.0	-0.2, 0.2	0.0	-0.2, 0.3	0.0	-0.3, 0.3
3	83	37.5	0.1	84	37.5	0.1	83	37.5	0.2	0.0	-0.3, 0.3	0.3	0.0, 0.6	0.2	-0.2, 0.5
4	82	39.1	0.1	83	39.1	0.1	82	39.0	0.2	0.0	-0.3, 0.3	0.4	0.0, 0.7	0.2	-0.2, 0.5
5	77	40.6	0.2	81	40.5	0.2	79	40.2	0.2	0.1	-0.3, 0.4	0.5	0.0, 0.9	0.0	-0.5, 0.4
6	74	41.7	0.2	78	41.6	0.2	76	41.5	0.2	0.1	-0.3, 0.4	0.4	-0.1, 0.9	0.2	-0.3, 0.6

GMF, goat milk based infant formula; CMF, cow milk based infant formula; BF, breast-fed; LS, least squares; MD, mean difference; SE, standard error

\*Adjusted for site, sex, and baseline value

<sup>†</sup>adjusted for site, sex, baseline value, maternal educational level, smoking during pregnancy, age at enrollment, and birth weight

### 3. Supplemental digital content

**Supplemental table 3.** Mean and SD of age- and sex-adjusted WHO z-scores for anthropometric measurements for all visits in the intention-to-treat sample (n=296).

Visit	Group	Weight (SD)		Length (SD)		Head circumference (SD)		Weight-for-length (SD)		
		n	Mean	SD	Mean	SD	Mean	SD	Mean	
1 (t=0)	GMF	108	-0.30	0.84	-0.08	1.04*	0.03	0.98**†	-0.64	1.01
	CMF	102	-0.14	0.86	0.16	1.07	0.35	0.87	-0.69	0.97
	BF	86	-0.12	0.82	0.37	1.10	0.48	1.02	-1.00	1.15
2 (t=14)	GMF	108	-0.21	0.74	-0.19	0.97	-0.01	0.88	-0.27	1.09
	CMF	102	-0.11	0.76	-0.66	4.86	-0.60	5.84	-0.46	0.95
	BF	86	-0.09	0.89	-0.21	3.66	0.40	0.94	-0.57	1.26
3 (t=28)	GMF	108	-0.06	0.74*	-0.14	0.94	0.15	0.85	0.11	1.01
	CMF	102	0.00	0.80	0.13	0.97	0.30	0.76	-0.17	1.03
	BF	86	-0.13	0.94	0.33	1.06	0.40	1.04	-0.61	1.31
4 (t=56)	GMF	108	0.02	0.80*	0.02	1.03	0.18	0.94	0.10	1.02*
	CMF	102	-0.03	0.84	0.19	0.95	0.35	0.85	-0.17	1.04
	BF	86	-0.21	0.97	0.19	1.02	0.37	0.90	-0.44	1.11
5 (t=84)	GMF	108	0.14	0.81*	0.21	0.98	0.28	0.90	0.05	0.99*
	CMF	102	0.03	0.85*	0.25	0.96	-0.11	4.75	-0.14	0.83
	BF	86	-0.21	0.97	0.26	0.97	0.45	0.96	-0.49	0.97
6 (t=112)	GMF	108	0.28	0.84*	0.35	0.85	0.39	0.99	0.12	0.97*
	CMF	102	0.12	0.88*	0.49	0.95	0.05	4.52	-0.22	0.96
	BF	86	-0.19	1.02	0.36	1.07	0.47	0.97	-0.52	0.99

GMF, goat milk based infant formula, CMF, cow milk based infant formula, BF, breast-fed

\*different from BF ( $p<0.05$ ) obtained from linear mixed model for repeated measures adjusting for site, sex, birth weight, age at inclusion, maternal smoking habits during pregnancy and maternal educational level

†different from CMF ( $p<0.05$ ) obtained from linear mixed model for repeated measures adjusting for site and sex

#### 4. Supplemental digital content

**Supplemental table 4.** Relative risk and 95% CI of tolerability symptoms over the 16-wk intervention period in 228 infants that completed the intervention.

	GMF (n=74)		CMF (n=79)		BF (n=75)		GMF vs. CMF		GMF vs. BF	
	n	%	n	%	n	%	RR	95% CI	RR	95% CI
Bloody stools	0	0	0	0	0	0	1.00	-	1.00	-
Reflux	73	98.7	78	98.7	75	100	1.00	0.96-1.04	0.99	0.96-1.01
Colic	70	94.6	76	96.2	74	98.7	0.98	0.92-1.05	0.96	0.90-1.02
Fussiness	71	96.0	77	97.5	75	100	0.98	0.90-1.04	0.96	0.92-1.01
Flatulence	71	96.0	77	97.5	74	98.7	0.98	0.93-1.04	0.97	0.92-1.03

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